

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Michael J. Hawthorne <i>et al.</i>	Confirmation No. 8600
Serial No.:	10/656,253	Art Unit: 2128
Filed:	September 8, 2003	Examiner: LUU, Cucong V.
For:	<b>METHOD OF TRANSFERRING FILES AND ANALYSIS OF TRAIN OPERATIONAL DATA</b>	

**AMENDMENT**

Mail Stop Amendments  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the official Patent Office action dated September 8, 2006 and the interviews of October 19 and 25, 2006, Applicants request reconsideration of the rejections. Claims 1-15 are rejected under 35 U.S.C. 112 as being incomplete. Claims 1, 2, 5-7 and 10-14 were rejected as anticipated under 35 U.S.C. 103 by Mosier U.S. Patent 4,041,283. Claims 3, 8, 9 and 15 were further rejected under 35 U.S.C. 103 as being obvious over Mosier by itself or in combination with Lynch *et al.*, Matheson and Herzberg *et al.*

Claims 1 and 10 have been amended to address the 35 U.S.C. 112 rejection. In that these are method claims, the structural cooperative relationship is not required as in an apparatus claim. Applicant has attempted to meet the Examiner's concerns by indicating in the claims that the adjustment is made by software, which is the alleged missing element for the automatic adjustment. Examples of the adjustments are described beginning in paragraph 66.

Independent Claim 1 is directed to a method of adjusting a simulator having initial parameters comprising inputting data from the train into the simulator and operating the simulator with the data and initial parameters. The next step is adjusting automatically using software the parameters of the simulator until the data of the simulator matches the data from the train.

Independent Claim 10 is a method for fine-tuning of a train dynamic model. The method includes inputting real time, measured train data from the train into the processor and running the train dynamic model with the initial parameters to produce modeled train data. Next the modeled train data and the measured train data are compared and the train parameters for the model are automatically adjusted using software until the modeled train data matches the measured train data.

Applicants agree with the rejection that Mosier does show inputting data from the train into the simulator and operating the simulator with the data. What it does not show is automatically adjusting the parameters of the simulator until the data of the simulator matches the data from the train. Column 17, lines 33-41 of Mosier does not meet this claim limitation. It specifically states:

[U]sing the data as to the length of each car in the train and location of the head of the train, the grade and curve values are determined for each car from the track profile data for use in resistance calculations. The rolling resistance calculations for a car  $R_{Rn}$  may be performed from the car data, train velocity, grade and curve values by using a modified Davis train resistance equation as previously discussed in the Mathematical Model section, note equation (2).

What this section says is that the grade and curve values are determined for each car from the track profile data. In order to do this, one must determine from the data the length of each car in the train and the location of the head end. This locates the cars with specific grade and curve values. This is not automatically adjusting initial parameters of the simulator but calculating parameters for each car from the inputted data. Mosier does not adjust nor recalculate any parameter until the simulator matches the data from the train. This is merely matching the location of each car with grade and curve values.

The next sentence merely describes that rolling resistance is calculated based on the car data, train velocity, grade and curve values. The calculation of this resistance is not “automatically adjusting using software the initial parameters of the simulator until the data of the simulator matches the data of the train.” There is no measured nor initial rolling resistance and thus there can be no comparison of the calculated rolling resistance to the actual rolling resistance and modification of the initial parameters of the simulator until this calculation matches the actual measured data. Thus Mosier cannot anticipate nor is it obvious to modify Mosier to meet the limitation of Claim 1.

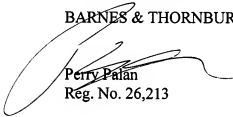
As discussed above, Claim 10 is even more specific that this is fine-tuning of a model. As with respect to Claim 1, Mosier does not discuss fine-tuning of a model by running the dynamic model and comparing the results of the model train data with the measured train data. Thus Mosier cannot anticipate nor would it be obvious to modify to meet the limitation of Claim 10.

It should be noted the dependent claims are allowable for their own independent limitations, as well as the limitations of independent Claims 1 and 10. All the claims are considered allowable over the art of record and thus the passage of this case to issue is respectfully solicited.

It is respectfully requested that, if necessary to effect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and shortages in other fees be charged, or any overpayment in fees be credited, to the Barnes & Thornburg LLP Deposit Account No. 02-1010 (509/35644).

Respectfully submitted,

**BARNES & THORNBURG LLP**



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